

To establish Dam Safety Review Panels (DSRP) for implementation of Dam Rehabilitation and Improvement Project (DRIP) phase II & phase III in Maharashtra by Central Government with the World Bank assistance.

**Government of Maharashtra**  
**Water Resources Department**  
**G.R.No MIDC 2017/(139/17)/IMW**  
Mantralaya, Mumbai-400 032  
Date- 12/06/2019

**Ref:** 1) GoM, Water Resources Department, Government Resolution No Misc 2017/(139/17)IMW dated 11th April, 2019 & 12th April 2019.

**Preamble:**

- 1) Dam Rehabilitation & Improvement Project (DRIP) is one of the Flagship projects of the Ministry of Water Resources, River Development & Ganga Rejuvenation, Government of India & the World Bank with the objective to improve safety & operational performance of selected dams, along with institutional strengthening with system wide management approach.
- 2) Central government has decided to implement Dam Rehabilitation & Improvement project phase II & phase III with the assistance of World Bank. In this project, there are various dams in Maharashtra state. Under this project, Maharashtra is expected to receive fund of about Rs. 940 crore.
- 3) As this project is being implemented with the assistance of World Bank, it is mandatory to provide various administrative arrangements as per directives, terms & conditions of World Bank for effective project management.

As Dam Rehabilitation Improvement project II (DRIP-II) has now been initiated officially with kicking off preparatory phase, it is necessary to complete preparatory activities which includes constitution of Dam safety Review Panel (DSRP).

Accordingly constitution of Dam safety Review panel (DSRP) as per guidelines for Safety Inspection of Dams January 2018 published by Central Water Commission Government of India, New Delhi for carrying out a comprehensive assessment of the dam system & comprehensive dam safety evaluation was under consideration of Government of Maharashtra at state level & hence Government of Maharashtra has taken following decision.

**Government Resolution:**

- (1) For Comprehensive assessment of dam system & comprehensive dam safety evaluation of dams included in DRIP-II following dam safety review panels (DSRP) are being constituted.
  - 1) Dam safety Review panel Number one (DSRP-1)

This panel will review dams included in DRIP-II from Nagpur region.

2) Dam Safety Review Panel Number Two (DSRP-2) This panel will review dams included in DRIP II from Aurangabad region.

3) Dam safety Review panel Number Three (DSRP-3)

This panel will review dams included in DRIP-II from Pune region.

4) Dam safety Review panel Number four (DSRP-4)

This panel will review dams included in DRIP-II from Amaravati, Nashik & Konkan region.

Details of experts/members of each DSRP are separately attached herewith as Annexure-I

**(2) Important provisions of Dam safety Review Panels:**

1) Tenure of Dam safety Review Panel will be one year from date of issue of this government resolution .

2) If due to any reason, any member of the panel resigns or due to some other reason place of the member in the panel remains vacant, another member will be appointed by the Govt. of maharashtra.

3) Convener of the concerned DSRP panel will be responsible for correspondance between Govt. Of Maharashtra & Dam safety Review panel (DSRP) and State Project Monitoring Unit (SPMU)

4) Convenor of the Concerned panel will arrange for Steno Typist and other necessary arrangements for experts of panel for report preparation .

**(3)Terms of references of the Dam Safety Review Panels (DSRP 1 to 4) will be as follows.**

3.1) Dam safety review panel constituted by Government of Maharashtra for Dam rehabilitation and improvement project will review all dams included in DRIP-II as per 10.2 Comprehensive Dam safety review procedures mentioned in Chapter 10 Comprehensive Dam Safety Review from Guidelines For Safety Inspection of Dams January 2018, published by Central Water Commission, GoI New Delhi and will suggest necessary remedial measures for rehabilitation and improvement of the dam and its appurtenant structures

3.2) Chief engineer/ Chief Administrator of concerned project will prepare a detailed memorandum based on instructions/suggestions from DSRP. This memorandum will comprise of all technical details/ Specifications along with estimated cost of the remedial work. This detailed memorandum will be submitted by the concern Chief Engineer/Chief administrator to concern DSRP for necessary consent.

3.3) After necessary consent from DSRP, concerned Chief engineer/Chief administrator will prepare draft tender papers for remedial works suggested by DSRP.

3.4) To ascertain that remedial works are in progress as per DSRP'S suggestions, DSRP will inspect such work as when it required

3.5) Each DSRP will get acquainted with record and database of each dam from assigned region for overall review of the dam including its operational requirements. Specific items to be overviewed and reassessed by each DSRP are as follows:

- a. Completion Report along with drawings & Technical specifications.
- b. Design, drawings & reports, Geological Investigation reports of foundation, Test reports of construction materials & stability analysis.
- c. Construction Reports, Database & reports of instruments installed in dam along with their maintenance records.
- d. Original inflow design flood report along with norms & procedure adopted for assessment of design flood.
- e. Assessment of adequacy of the spillway along with its operation schedule.
- f. Review of emergency preparedness including procedures, facilities for releasing discharge from the dam, alarming system to all concerned on downstream side, alarming system in case of high floods, Reservoir & Gate Operation Schedules (ROS & GOS), Approach road to reservoir & dam during emergency situation.
- g. Site Inspection Reports by DSO, Nashik.
- h. Remedial measures suggested by field engineers for renovation/rehabilitation work, approximate cost & other relevant details.

If necessary DSRP can demand any other extra field information, laboratory test reports if any from field officers.

These Terms of References (TOR) shall be monitored and /or updated time to time by SPMU as per prevailing guidelines.

#### **(4) Meetings:-**

- 4.1) Chairman of the DSRP panel can arrange a meeting whenever he deems fit for review & assessment of records & databases and also for discussing the queries from field engineers.
- 4.2) Such meeting will be conducted preferably in the concerned region of the panel & attendance of all experts/members will be compulsory.

- 4.3) Each convener will plan & arrange the meeting by discussing with chairman & expert/members of the panel.

#### **(5) Site Visit & Inspection Tour**

Each DSRP shall visit each major & medium dam from the concerned region at least once.

For visit to minor dams, DSRP shall decide as per review of records & data bases mentioned in Para 3.5 subject to the condition that at least 25% of total minor dams from the region must be visited by DSRP.

After each inspection tour, Dam Safety Review Panel will prepare separate note/report thereof comprising of details of dam safety measures, recommendations & other details if any.

#### **(6) Supplementary Services.**

6.1) Convener of each Dam Safety Review Panel will provide all necessary assistance including services of field staff concerned with dam operation & maintenance to panel as & when demanded or request by the panel.

6.2) Convener of each Dam Safety Review Panel will supply all design reports, design drawings, calculations, methodology, all available records & databases, technical specifications & all other necessary relevant reports/ documents related to dams included in DRIP-II to panel.

DSRP can suggest additional studies required if any for assessment of dam safety issues.

6.3) Convener will provide all necessary assistance to panel for preparation of reports.

6.4) Dam Safety Review Panel are authorised to take necessary assistance/expertise from following organisations of Govt. of Maharashtra.

- 1) Central Designs Organisation, Nashik.
- 2) MERI, Nashik.
- 3) Chief Engineer, Planning & Hydrology, Nashik.

Instructions regarding remuneration to DSRP experts/members will be issued separately in concurrence with finance department

This Government resolution of Maharashtra Govt. is available on the website [www.maharashtra.gov.in](http://www.maharashtra.gov.in) with Reference NO. 201906121515446627. This order has been signed digitally.

By Order & in the name of Governor of Maharashtra.

**( Rohit R. POL )**  
Under Secretary

**Copy-**

1. Additional Chief Secretary to Hon. Chief Minister, Government of Maharashtra, Mumbai.
2. Personal Secretary to Hon. Minister, Water Resources Department, Mumbai.
3. Personal Secretary to Hon. State Minister, Water Resources Department, Mumbai.
4. Joint Secretary to Hon. Chief Secretary, Mumbai.
5. Additional Chief Secretary Finance, Government of Maharashtra, Mumbai.
6. Additional Chief Secretary Planning, Government of Maharashtra, Mumbai.
7. Principal Secretary, Water Resources Department, Mumbai.
8. Secretary, (CADA), Water Resources Department, Mumbai.
9. Secretary, (Project co-ordination), Water Resources Department, Mumbai.
10. Director General, MERI, Nashik-4
11. Executive Director, MKVDC, Pune.
12. Executive Director, VIDC, Nagpur
13. Executive Director, GMIDC, Aurangabad.
14. Executive Director, TIDC, Jalgaon.
15. Executive Director, KIDC, Thane.
16. Director, Dam Safty Organisation, Central Project Monitoring Unit (CPMU), Central Water Commission, Seva Bhavan, Near Liabrary Building, R.K. Puram Sector, New Delhi.
17. Chief Engineer, WR, Pune
18. Chief Engineer, SP, Pune
19. Chief Engineer, WR, Nagpur
20. Chief Engineer, WR, Amravati
21. Chief Engineer, SP, Amravati
22. Chief Engineer, TIDC, Jalgaon
23. Chief Engineer, NMR, Nashik
24. Chief Engineer, WR, Aurangabad
25. Chief Engineer, CADA, Aurangabad
26. Chief Engineer, WR, Kokan Region, Mumbai
27. Chief Engineer, Planning & Hydrology, Nashik
28. Superintending Engineer, DSO, Nashik
29. Irrigation Management (Works)-for record.

**Annexure -I of Government of Maharashtra, WRD, Govt. Resolution No. MISC.2017/(139/17)IMW, Mantralaya Mumbai dated: 12/06/2019**

<b>DSRP Panel No.</b>	<b>Revenue Region</b>	<b>Chairman</b>	<b>Member-1</b>	<b>Member-2</b>	<b>Member-3</b>	<b>Member-4</b>	<b>Member-5</b>	<b>Member-6</b>	<b>Convener and Member Secretary</b>
		<b>Dam Safety Expert</b>	<b>Design Expert</b>	<b>Construction Supervision Expert</b>	<b>Geologist</b>	<b>Hydrologist</b>	<b>Hydro Mechanical Expert</b>	<b>Instrumentation and Seismic Expert</b>	
1	Nagpur	C. N. Hangekar Retire C.E. WRD	Superintending Engineer Dam Circle, Central Design Organisation, Nashik	Concerned Chief Engineer	Dinesh Chandra Tripathi Geologist, Haryana	Rakesh kumar Gupta Hydrologist New Delhi	S.K.Srivastava Hydro Mechanical Expert New Delhi	S..D. Ranade, CWPRS, Pune	Concerned Superintending Engineer
2	Aurangabad	R.K. Nitturkar Retire C.E. WRD	Superintending Engineer Gates Circle, Central Design Organisation, Nashik	Concerned Chief Engineer	Arindom Chokraborty Geologist Haryana	Rakesh kumar Gupta Hydrologist New Delhi	S.K.Srivastava Hydro Mechanical Expert New Delhi	Rizwan Ali CWPRS, Pune	Concerned Superintending Engineer
3	Pune	D.N.Modak Retire C.E. WRD	Superintending Engineer Canal Design Circle, Central Design Organisation, Nashik	Concerned Chief Engineer	C.Thanavelu Geologist Tamilnadu	R.S. Gaikwad	V.K.Maini Hydro Mechanical Expert Faridabad	Dr. N.D. Atkekar CWPRS, Pune	Concerned Superintending Engineer
4	Nashik , Konkan& Amaravati	B.C.Kunjeer Retire E.D. WRD	Superintending Engineer Lift Irrigation Scheme Circle, Central Design Organisation, Nashik	Concerned Chief Engineer	C.Thanavelu Geologist Tamilnadu	R.S. Gaikwad	V.K.Maini Hydro Mechanical Expert Faridabad	Sachin Khupat CWPRS, Pune	Concerned Superintending Engineer

(Rohit R. POL)  
Under Secretary, Mantralaya